AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Previously Presented) In a multiple-access OFDM-CDMA system, a method for recovering data transmitted over a wireless communication channel, comprising:

processing a received signal to provide data samples;

transforming the data samples in the frequency domain in accordance with a particular transformation to provide transformed samples;

despreading the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of despreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to spread data prior to transmission and selected from a set of available spreading codes;

combining the despread samples for each time interval to provide a demodulated symbol representative of a transmitted OFDM symbol; and

decoding demodulated symbols to provide decoded data.

2. (Original) The method of claim 1, further comprising:

decovering the data samples with a cover code to provide decovered samples, wherein the transforming is performed on the decovered samples.

3. (Original) The method of claim 1, further comprising:

discarding data samples corresponding to a cyclic prefix appended to each OFDM symbol.

4. (Original) The method of claim 1, wherein the transformation is a Fourier transform.

5. (Original) The method of claim 1, further comprising:

combining demodulated symbols derived from a plurality of received signals to provide combined demodulated symbols.

6. (Original) The method of claim 5, wherein the plurality of received signals are transmitted from a plurality of cells or sectors in the system.

7. (Original) The method of claim 1, further comprising:

estimating a response for the communication channel, and

wherein each set of despreading coefficients is derived based in part on a set of weights indicative of the estimated channel response.

8. (Original) The method of claim 7, wherein the channel response is estimated based on a pilot included in the received signal.

9. (Original) The method of claim 1, further comprising:

estimating a quality of the received signal; and

transmitting power control commands derived based on the estimated received signal quality.

10. (Original) The method of claim 9, wherein the received signal quality is estimated based on the demodulated symbols.

11. (Original) The method of claim 9, wherein the received signal quality is estimated based on a pilot included in the received signal.

12. (Previously Presented) In a multiple-access OFDM-CDMA system, a method for recovering data transmitted over a wireless communication channel, comprising:

processing a received signal to provide data samples;

decovering the data samples with a cover code to provide decovered samples;

transforming the decovered samples in the frequency domain in accordance with a Fourier transform to provide transformed samples;

despreading the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of despreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to spread data prior to transmission and selected from a set of available spreading codes;

combining the despread samples for each time interval to provide a demodulated symbol representative of a transmitted OFDM symbol; and

decoding demodulated symbols to provide decoded data.

13. (Previously Presented) A receiver unit in a multiple-access OFDM-CDMA system, comprising:

a receiver operative to process a received signal to provide data samples;

a transformer operative to transform the data samples in the frequency domain in accordance with a particular transformation to provide transformed samples;

a despreader operative to despread the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of despreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to spread data prior to transmission and selected from a set of available spreading codes;

a first summer operative to combine the despread samples for each time interval to provide a demodulated symbol representative of a transmitted OFDM symbol; and

a RX data processor operative to decode demodulated symbols to provide decoded data.

14. (Original) The receiver unit of claim 13, further comprising:

a buffer operative to discard data samples corresponding to a cyclic prefix appended to each OFDM symbol.

15. (Original) The receiver unit of claim 13, further comprising:

a multiplier operative to decover the data samples with a cover code to provide decovered samples, wherein the transformer is operative to transform the decovered samples.

16. (Original) The receiver unit of claim 13, further comprising:

a second summer operative to combine demodulated symbols derived from a plurality of received signals to provide combined demodulated symbols.

17. (Original) The receiver unit of claim 16, wherein the plurality of received signals are from a plurality of cells or sectors in the system.

18. (Previously Presented) A base station in a multiple-access OFDM-CDMA system, the base station comprising:

an antenna to receive a signal; and

a receiver unit to which the antenna provides the received signal, wherein the receiver unit comprises:

a receiver operative to process the received signal to provide data samples;

a transformer operative to transform the data samples in the frequency domain in accordance with a particular transformation to provide transformed samples;

a despreader operative to despread the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of dispreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to spread data prior to transmission and selected from a set of available spreading codes;

a first summer operative to combine the despread samples for each time interval to provide a demodulated symbol representative of a transmitted OFDM symbol; and

a RX data processor operative to decode demodulated symbols to provide decoded data.

19. (Previously Presented) A terminal in a multiple-access OFDM-CDMA system, the terminal comprising:

an antenna to receive a signal; and

a receiver unit to which the antenna provides the received signal, wherein the receiver unit comprises:

a receiver operative to process the received signal to provide data samples;

a transformer operative to transform the data samples in the frequency domain in accordance with a particular transformation to provide transformed samples;

a despreader operative to despread the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of despreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to spread data prior to transmission and selected from a set of available spreading codes;

a first summer operative to combine the despread samples for each time interval

to provide a demodulated symbol representative of a transmitted OFDM symbol; and

a RX data processor operative to decode demodulated symbols to provide decoded data.

20. (Previously Presented) A receiver apparatus in a multiple-access OFDM-CDMA system, comprising:

means for processing a received signal to provide data samples;

means for transforming the data samples in the frequency domain in accordance with a particular transformation to provide transformed samples;

means for despreading the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of despreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to spread data prior to transmission and selected from a set of available spreading codes;

means for combining the despread samples for each time interval to provide a demodulated symbol representative of a transmitted OFDM symbol; and

means for decoding demodulated symbols to provide decoded data.

21. (Previously Presented) A computer-readable storage medium storing computer code in which the code indicates to the computer to recover data by:

processing a received signal to provide data samples;

transforming the data samples in the frequency domain in accordance with a particular transformation to provide transformed samples;

despreading the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of despreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to spread data prior to transmission and selected from a set of available spreading codes;

combining the despread samples for each time interval to provide a demodulated symbol representative of a transmitted OFDM symbol; and

decoding demodulated symbols to provide decoded data.

22. (Previously Presented) The computer-readable storage medium of claim 21, the data recovery further comprising:

decovering the data samples with a cover code to provide decovered samples, wherein

the transforming is performed on the decovered samples.

23. (Previously Presented) The computer-readable storage medium of claim 21, the data recovery further comprising:

discarding data samples corresponding to a cyclic prefix appended to each OFDM symbol.

24. (Previously Presented) The computer-readable storage medium of claim 21, the data recovery further comprising:

combining demodulated symbols derived from a plurality of received signals to provide combined demodulated symbols.

25. (Previously Presented) The computer-readable storage medium of claim 21, the data recovery further comprising:

estimating a response for the communication channel, and

wherein each set of despreading coefficients is derived based in part on a set of weights indicative of the estimated channel response.

26. (Previously Presented) The computer-readable storage medium of claim 21, the data recovery further comprising:

estimating a quality of the received signal; and

transmitting power control commands derived based on the estimated received signal quality.

27. (Previously Presented) A processor executing instructions for recovering data transmitted over a wireless communication channel comprising:

instructions to process a received signal to provide data samples;

instructions to transform the data samples in the frequency domain in accordance with a particular transformation to provide transformed samples;

instructions to despread the transformed samples with one or more sets of despreading coefficients to provide despread samples, wherein each set of despreading coefficients is associated with a respective despreading code that corresponds to a spreading code used to

spread data prior to transmission and selected from a set of available spreading codes;

instructions to combine the despread samples for each time interval to provide a demodulated symbol representative of a transmitted OFDM symbol; and

instructions to decode demodulated symbols to provide decoded data.

28. (Previously Presented) The processor of claim 27, further comprising:

instructions to decover the data samples with a cover code to provide decovered samples, wherein the transforming is performed on the decovered samples.

29. (Previously Presented) The processor of claim 27, further comprising:

instructions to discard data samples corresponding to a cyclic prefix appended to each OFDM symbol.

30. (Previously Presented) The processor of claim 27, further comprising:

instructions to combine demodulated symbols derived from a plurality of received signals to provide combined demodulated symbols.

31. (Previously Presented) The processor of claim 27, further comprising:

instructions to estimate a response for the communication channel, and

wherein each set of despreading coefficients is derived based in part on a set of weights indicative of the estimated channel response.

32. (Previously Presented) The processor of claim 27, further comprising:

instructions to estimate a quality of the received signal; and

instructions to transmit power control commands derived based on the estimated received signal quality.